Paper ID: 77982
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IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Launch Vehicles in Service or in Development (1)

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THE YL-2 LAUNCH VEHICLE AND ITS FUTURE PLANS

Abstract

A human mission to the near-earth space by low cost and high efficiency is the space economy development condition of the commercial enterprises and community. To achieve the need, the Yinli-2(YL-2) launch vehicle is developed as key elements in the architecture for commercial missions. YL-2 is a large reusable solid-liquid bunched launch vehicle with a two-stage configuration.It uses liquid oxygen and kerosene propellants, and has a 700km sun-synchronous orbit carrying capacity of no less than 15t. The system scheme design of YL-2 has been completed at the end of the year 2022 and the prototype design is under way. The maiden flight of YL-2 will be launched at the end of the year 2025 according to its development schedule. In this paper, the overall plan and technological innovation of the rocket are briefly introduced, the recovery scheme of the rocket are discussed, the adaptability of the rocket to multiple missions is introduced, and the future development of the rocket is prospected.